

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To: John S. Pratt
Kilpatrick Stockton LLP
Suite 2800
1100 Peachtree Street
Atlanta, Georgia 30309

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 32513/335452	Date of mailing (day/month/year)
International application No. PCT/US06/41354	International filing date (day/month/year) 23 October 2006
Applicant NICOLON CORPORATION	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 740 14 35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver Telephone No. 571-272-7774
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THE INTERNATIONAL SEARCH REPORT AND
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SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 32513/335452	Date of mailing <i>(day/month/year)</i> 10 JAN 2008
International application No. PCT/US06/41354	International filing date <i>(day/month/year)</i> 23 October 2006
Applicant NICOLON CORPORATION	

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Filing of amendments and statement under Article 19:

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When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

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See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver Telephone No. 571-272-7774
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 32513/335452	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US06/41354	International filing date (<i>day/month/year</i>) 23 October 2006	(Earliest) Priority Date (<i>day/month/year</i>) 25 October 2005
Applicant NICOLON CORPORATION		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 2
☒ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

Methods, systems, and apparatus for a fill port for a flexible container such as a flexible self supporting dewatering structure. An apparatus in accordance with an embodiment of the invention can be a fill port for a flexible container such as a flexible self supporting dewatering structure, wherein the flexible container can include a flexible material and an opening. The fill port can include an inner port body capable of mounting to one side of the flexible material and adjacent to the opening, wherein inner port body is capable of receiving a fill material through the opening. The fill port can also include an outer port body capable of mounting to an opposing side of the flexible material adjacent to the opening, wherein outer port body is capable of receiving the fill material through the opening.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/41354

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - E02B 03/12 (2007.01)

USPC - 405/19

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC(8) - E02B 03/12, 03/04, 03/06, 03/08, 03/12, 03/14; E02D 17/20; F16L 05/00 (2007.01)
 USPC - 405/15-35, 302.7; 383/904; 403/261; 285/139.1, 142.1, 413, 414

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO EAST System (US, USPG-PUB, EPO, DERWENT), MicroPatent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,623,214 B1 (HAUSKE et al) 23 September 2003 (23.09.2003) entire document	1, 2, 4-11, 13-21, 23-31, 33-39
Y		3, 12, 22, 32
Y	US 6,264,251 B1 (KUNSMAN et al) 24 July 2001 (24.07.2001) entire document	3, 12, 22, 32
A	US 4,966,491 A (SAMPLE) 30 October 1990 (30.10.1990) entire document	1-39
A	US 5,481,790 A (KOREIS et al) 09 January 1996 (09.01.1996) entire document	1-39
A	US 5,826,919 A (BRAVO et al) 27 October 1998 (27.10.1998) entire document	1-39



Further documents are listed in the continuation of Box C.



* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

08 March 2007

Date of mailing of the international search report

10 JAN 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
 P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: John S. Pratt
Kilpatrick Stockton LLP
Suite 2800
1100 Peachtree Street
Atlanta, Georgia 30309

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference 32513/335452		Date of mailing <i>(day/month/year)</i> 10 JAN 2008
International application No. PCT/US06/41354		FOR FURTHER ACTION See paragraph 2 below
International filing date <i>(day/month/year)</i> 23 October 2006	Priority date <i>(day/month/year)</i> 25 October 2005	
International Patent Classification (IPC) or both national classification and IPC IPC(8) - E02B 03/12 (2007.01) USPC - 405/19		
Applicant NICOLON CORPORATION		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Date of completion of this opinion 08 March 2007	Authorized officer: Blaine Copenheaver <small>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</small>
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US06/41354

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US06/41354

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3, 12, 22, 32	YES
	Claims	1, 2, 4-11, 13-21, 23-31 and 33-39	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-39	NO
Industrial applicability (IA)	Claims	1-39	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 2, 4-11, 13-21, 23-31 and 33-39 lack novelty under PCT Article 33(2) as being anticipated by Hauske et al. With respect to 1, 2 and 4-9, Hauske et al. discloses [Cl. 1] a method for providing a fill port (144, figs. 10-12; col.9, lines 15-63) for a flexible container (146) comprising a flexible material (col. 1, lines 18-21 and col. 9, lines 17-18), the method comprising mounting an inner port body (154) to one side of a flexible material associated with a container, wherein the inner port body is capable of receiving a fill material (col. 9, lines 15-18), mounting an outer port body (160) to an opposing side of the flexible material (146; see figs. 10-12), wherein the outer port body is capable of transferring the fill material to the inner port body, advancing a portion of the inner port body towards a portion of the outer port body (col. 9, lines 24-26), wherein a portion of the flexible material is positioned proximate to and between the inner port body and the outer port body (146, 154, 160; see figs. 10-12); and creating at least one opening in the flexible material (col. 9, lines 52-63, in particular lines 60-63) to permit the fill material to be transferred through the outer port body, the at least one opening, and to the inner port body; [Cl. 2] wherein the inner port body and outer port body comprise corresponding flat ring-shaped structures (figs. 10-12); [Cl. 4] wherein advancing a portion of the inner port body towards a portion of the outer port body comprises use of at least one of the following devices: bolt, clamp, adhesive, weld, or rivet (bolt, 162, 164); [Cl. 5] wherein advancing a portion of the inner port body towards a portion of the outer port body comprises clamping the portion of the flexible material relative to the inner port body and outer port body (as shown in fig. 12); [Cl. 6] wherein creating at least one opening in the flexible material to permit the fill material to be transferred through the inner port body comprises cutting a portion of the flexible material clamped between the inner port body and the outer port body (col. 9, lines 60-63); [Cl. 7] mounting an inner gasket (156) between the inner port body and the one side of the flexible material, and mounting an outer gasket (158) between the outer port body and the opposing side of the flexible material (col. 9, lines 20-39; figs. 10-12); [Cl. 8] mounting a flow line (172) to the outer port body, wherein the flow line is capable of providing the fill material to the outer port body and to the flexible container; [Cl. 9] wherein the flexible material comprises a flexible fabric (col. 1, lines 18-21 and col. 9, lines 17-18). Regarding claims 10, 11 and 13-19, [Cl. 10] (see explanation of claim 1); [Cl. 11] (see explanation of claim 2); [Cl. 13] (see explanation of claim 4); [Cl. 14] (see explanation of claim 5); [Cl. 15] (see explanation of claim 6); [Cl. 16] (see explanation of claim 7); [Cl. 17] (see explanation of claim 8); [Cl. 18] a sleeve (166) capable of mounting to the outer port body, and further capable of mounting to a flow line (172), wherein a fill material can be transmitted from the flow line, through the sleeve, and to the outer port body (col. 9, lines 40-48); and [Cl. 19] (see explanation of claim 9). Regarding claims 20, 21 and 23-29, Hauske et al. discloses [Cl. 20] (see explanation of claims 1, 4 and 5) pumping the fill material through the outer port body, the at least one opening, and the inner port body (col. 8, lines 53-56); [Cl. 21] (see explanation of claim 2); [Cl. 23] (see explanation of claim 4); [Cl. 24] (see explanation of claim 5); [Cl. 25] (see explanation of claim 6); [Cl. 26] (see explanation of claim 7); [Cl. 27] (see explanation of claim 8); [Cl. 28] (see explanation of claim 18); and [Cl. 29] (see explanation of claim 9). Regarding claims 30, 31 and 33-39, [Cl. 30] (see explanation of claim 1); [Cl. 31] (see explanation of claim 2); [Cl. 33] (see explanation of claim 4); [Cl. 34] (see explanation of claim 5); [Cl. 35] (see explanation of claim 6); [Cl. 36] (see explanation of claim 7); [Cl. 37] (see explanation of claim 8); [Cl. 38] (see explanation of claim 18); and [Cl. 39] (see explanation of claim 9).

Claims 3, 12, 22 and 32 lack an inventive step under PCT Article 33(3) as being obvious over Hauske et al. in view of Kunsman et al. With respect to claims 3, 12, 22, and 32, Hauske et al. discloses the method of using, the combination of and a fill port for a flexible container of claims 2, 10, 20 and 30, but lacks the teaching of the corresponding flat ring-shaped structures each comprise one or more cellular surfaces. Kunsman et al. shows a coupling for attaching the free end of a pipe to a flanged connector (abstract) and a segmented flange coupler (50, 52) having a plurality of cellular surfaces (figs. 10, 12, 17 and 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cellular surfaces in the flat ring-shaped structures of Hauske et al., as taught by Kunsman et al., to save material and for force distribution.

Claims 1-39 meet the criteria set out in PCT Article 33(4), and thus industrial applicability because the subject matter claimed can be made or used in industry.